

- Because of speed restrictions, Norfolk Southern trains traveling from Livernois-Junction Yard to the River Rouge Bridge are scheduled to take 30 minutes, even though it is approximately three miles away. Similarly, trains are scheduled to take 35 minutes to get to Oakwood Yard, which is approximately 2½ miles away. Trains occupying these segments of track for this long – whether they are departing, waiting or arriving – reduce the available track time for other trains, which must park and wait.

Possible Improvements: Improvements to mainline switches along high movement routes will allow trains to operate at 25 mph and 40 mph. Mainline curvature not exceeding three degrees will also allow higher speeds. Signal spacing needs are discussed below.

- ✍ Length of Trains. When the area was developed, the standard rail car was 40 feet long and a train with 100 cars was about 4,000 feet long. Today, many rail cars are 90 feet long with some reaching 250 feet. Train length can easily reach 9,000 feet. There are approximately 80 trains per day that operate through the Detroit area.

Examples:

- If a train longer than 4,000 feet is stopped between West Detroit and Delray it will be blocking tracks at Dix and Waterman, stopping other trains trying to get into the Livernois-Junction Yard as well as through the corridor.
- A train moving to the Oakwood Yard could have tracks blocked affecting movement to and from Delray, River Rouge and Ecorse.

Possible Improvements: Terminals are being laid out to accommodate 9,000-foot trains where possible to allow trains to clear the mainline track.

- ✍ Route Conflicts. Because of the way some track connections are laid out, trains sometimes block other trains.

Examples:

- Amtrak trains currently travel from the Milwaukee Junction to Livernois-Junction Yard. While making this trip, they cause conflicts at Milwaukee Junction which stop all movement on three of the four tracks. The Amtrak trains causes conflict again at Beaubien Junction, stopping the movement on three of the four tracks. It then has to cross over Vinewood, stopping movement on all but one track. Finally, it crosses at West Detroit, stopping all movement on the CN and NS mainline track.
- Every time a CP train travels through Delray, all NS and CN trains must stop moving until the CP train has cleared the yard.

Possible Improvements: Route rationalization from Milwaukee Junction to Delray will be helpful. The example of the Amtrak track with the four major conflicts could be eliminated. Solutions to Dix and Waterman problems and to provide a more flexible operation at Delray will also be productive.

- ✍ Signaling. In the area around Livernois-Junction Yard, several different signaling situations cause major impacts on train operations.

Examples:

- Delray is operated by CSX, while the River Rouge Bridge, less than half a mile south, is operated by NS. The track in between has signals in only one direction. This requires continual coordination between both yards for every train movement.
- Because there are signals in only one direction, trains must operate at restricted speeds.
- Signal spacing governs the speed trains can operate. Trains leaving and entering areas with signals around the Livernois-Junction Yard generally must operate at only 10 mph.
- In several locations, more than one train operator is needed to make a single movement. This happens when one railroad has control over one switch while another has control of a second switch, and both are needed for a train to move through an area. This occurs at Vinewood, where Conrail has control of one switch and CN has control over the other switch. This also occurs at CP Lou, Cooledge and Milwaukee Junction.

Possible Improvements: Signal design is completed after the track layout is defined. Signaling will need to be designed to allow a minimum speed of 25 mph. Junctions need to have simultaneous movements of trains so more than one can move through an area at the same time.

- ✍ Switching Operations. At several locations in the area, railroads must use the mainline tracks to switch rail cars around while “building” a train.

Examples:

- At the southeast end of Livernois-Junction Yard, rail cars being switched around take up three of the four available tracks that mainline trains could be using to pass through.
- This also occurs at the east end of Livernois-Junction Yard, at Milwaukee Junction, and at Ecorse. At all of these locations, switching rail cars around impacts movement within the yard or on the mainline.

Possible Improvements: Creating efficient switching operations to allow for a train to be “built” on separate tracks that are clear of the mainline is needed. This would ease congestion on the mainline, improving capacity throughout the region.

In all cases cited above, any increase in the number of trains or the amount of switching required will make the existing problems worse. Addressing these rail connection problems, however, would improve the efficiency of the yards, increase the productivity of the trains, and reduce costs, pollution and noise.

### 3.5 Public Endorsements

A commitment to improve intermodal transportation in Southeast Michigan has received support from former Governor John Engler, Congresswoman Carolyn Cheeks Kilpatrick, Congressman John Dingell, and others. As a state legislator, Ms. Kilpatrick sponsored legislation leading to the initial consultant study of the project. As a Congresswoman, she and Congressman Dingell have expressed their support by including it as a high priority project within the federal transportation bill known as the Transportation Equity Act of the 21st Century, or TEA-21. It provides \$18 million in federal funding. TEA-21, Section 1602, identifies “High Priority Projects” for funding under the Act. High Priority Project 1221 is described as, “Construct intermodal freight terminal in Wayne County.

## 4. Project Description

### 4.1 Overview

The alternative chosen through the EIS process will be the one that best meets the project's purpose and need. It will also identify the impacts and benefits of all three alternatives. But, only when impacts are absolutely unacceptable, or the difference in impacts between alternatives extremely lop-sided without a commensurate gain in benefits, would a lesser alternative, from the standpoint of meeting the project's need, be accepted. In this effort, each terminal in Alternative 2 will be analyzed separately in all issue categories as shown in Figure 6. Then these impacts, where appropriate (e.g., possible land acquisition, economic impacts, structures affected by noise) will be added together to develop a basis for understanding the difference between it and the consolidated terminal concept (Alternative 3) and the No Action scenario (Alternative 1). Where negative impacts are identified, ways will be examined to avoid causing them or mitigating them.

Below is a summary description of the characteristics of the area around each terminal.

### 4.2 Terminal Area Characteristics

#### 4.2.1 Livernois-Junction Yard/CP Expressway Terminal

For the Livernois-Junction Yard and the CP/Expressway terminal, the local project area is shown on Figure 7. It includes about 73,500 people of whom 21 percent are minority.<sup>5</sup> The Hispanic population is 45 percent. One-third of the people in this area live below the poverty level per the 2000 Census.

Presently about 80 train movements occur daily at some point within the area, with less than half being continuous through movements.

International border crossings at the Ambassador Bridge, the Detroit-Windsor Tunnel, and the Detroit-Canada Rail Tunnel serve the area. A portion of the Port of Detroit is within the project area. And, Greater Detroit's airports are directly connected to the project area by the freeway system.

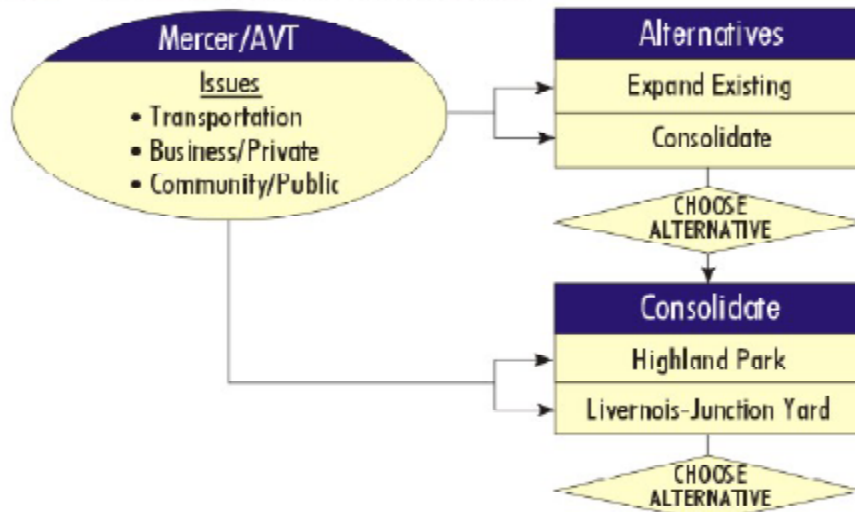
The Fisher Freeway (I-75) is a major north-south interstate highway that connects Miami, Fla., to the south and Sault Ste. Marie to the north in Michigan's Upper Peninsula. I-75 is a major economic corridor that is critical to Michigan's and the nation's economy.

The Edsel Ford Freeway (I-94) is a primary east-west connector linking Canada through Port Huron, Mich., to Chicago and points west. I-94 also links four regional airports in Southeast Michigan. I-96 (Jeffries Freeway) originates at the Ambassador Bridge where it intersects with I-75 and I-94. It runs west through Lansing, Mich., and Grand Rapids before terminating near Muskegon.

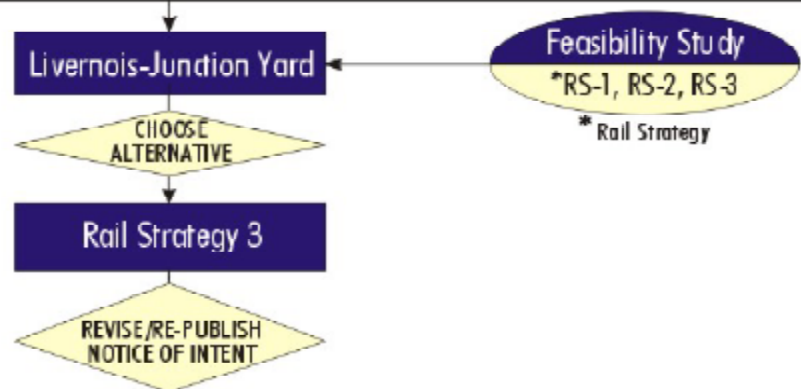
<sup>5</sup>Minority Population is calculated based on the groups protected under FHWA's Environmental Justice guidelines.

**Figure 6**  
**Detroit Intermodal Freight Terminal Project**  
**Process to Revise EIS Scope of Work**

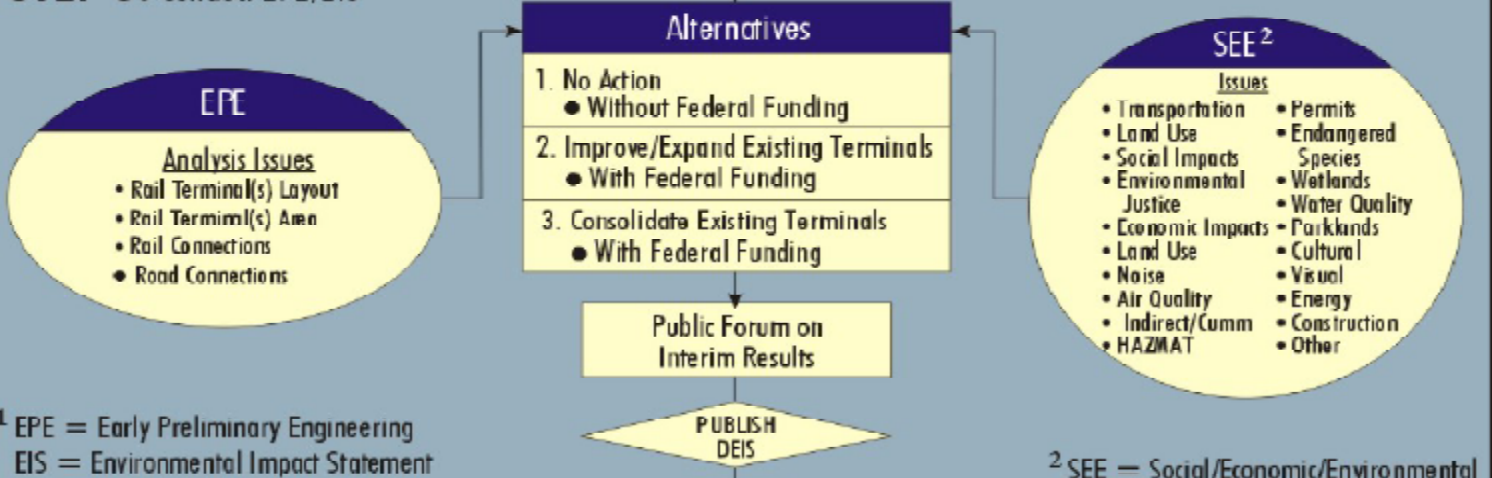
**STEP 1: Conceptual Alternatives Analysis**



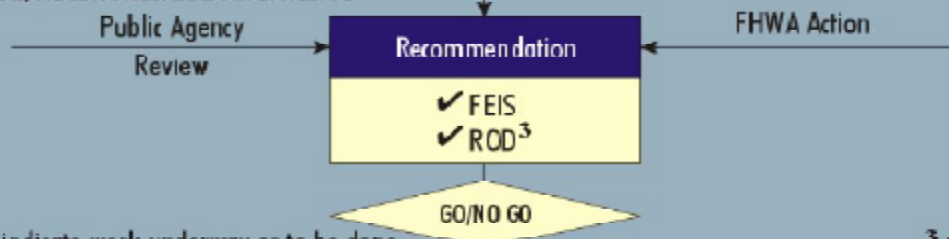
**STEP 2: Illustrative Alternatives**



**STEP 3: Conduct EPE/EIS<sup>1</sup>**



**STEP 4: Preferred/Recommended Alternative**



NOTE: The shaded areas indicate work underway or to be done.

<sup>3</sup> ROD = Record of Decision